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THE COUNTY MEDICAL SOCIETY AND THE GENERAL PRACTITIONER*

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If I had devoted a part of my time in the past eight months to reading some of the very latest articles written by brilliant men on subjects pertaining to the practice of medicine and surgery, I might have pieced together some of the things that I read and rendered a paper that would be considered rather well written and perhaps very interesting. But instead I picked two subjects that I consider very important, and I also feel that I am capable to a certain degree to discuss these subjects without any outside help.

So I am going to speak to you today about the county medical society and the general practitioner. These two subjects have suddenly jumped into the limelight, and the A. M. A. and many of the state medical societies are giving them a lot of thought and consideration. To me it is easy to understand why they are so concerned about the county medical society. The A. M. A. is aware of the fact that they must have a strong support from each and every state medical society; and each and every state medical society is as strong only as is each of its component parts namely: the county medical society in that state.

Now if all this is true as to how invaluable the county medical society is, then why is the A. M. A. so alarmed? Well, gentlemen, I think I can answer that question and I quote the following:

"The county medical society in many areas has become just another society."

This statement by Dr. Louis Bauer (A. M. A. Trustee and President of the Medical Society of the State of New York) is an alarming truth. Medicine has become over-organized. Surgical societies, obstetrical societies, pediatric societies, general practice societies, and others have sprung up everywhere. In many places this movement has reduced the interest in county society activities, has lowered attendance at society meetings, and has diminished the influence of the county medical society in the community.

Today the influence of the county medical society is needed more than ever before. The individual physician must be kept united and informed; the public must be educated as to the problems of medicine, both scientific and economic, and liaison must be maintained with lay groups and organizations in the community. These are the functions of the county medical society.

What are the responsibilities of a county medical society? The county medical society has a responsibility to the public, a responsibility to its membership, and a responsibility to medical organization. There is no order of preference; all are equally important. One cannot survive without the other two. The first step toward understanding within the membership is to succeed in an understanding among the county medical society officers.

"The county medical society is as effective, or as ineffective, as its success in carrying on its responsibilities. Such success depends on the individual physicians who make up each society." Unquote.

Referring to the specialty societies, I personally think that they are also invaluable. They keep men who are working in the same branch of medicine or surgery closely associated and afford means of frequent discussions and keep men familiar with all new subjects and procedures in their particular line. So keep up your work in these societies. Keep these societies alive, but do not keep them alive at the expense of the county medical society. Remember, that everything in organized medicine starts at the county medical so-

*Presidential Address, delivered before the Medical Society of Delaware, Rehoboth, September 15, 1948.

ciety level. And remember, that you are the county medical society! And, you are the state medical society!

So, gentlemen, make your county medical society meetings interesting. Have your program arranged far in advance of the meeting. Don't wait until the last moment and then have just whatever you can get. Keep your scientific committee on their toes and likewise keep your social committee on their toes. Make your meetings attractive, not only from the scientific standpoint but from the social standpoint as well, for there is as much or more discussion and ironing out of problems during the collation than during the business or scientific part of the program. So make your meetings so attractive that the members will look forward to going to the next one, and, when you attend a meeting, do not go just to be marked present; go to enter into the discussions, make suggestions, ask questions, take something of value into the society, and likewise, when you leave try to feel that you have received something of value in return.

It would be rather difficult for me to discuss the activities in the three county medical societies in Delaware, as the New Castle County Medical Society has about three times as many members as the Kent and Sussex county societies put together. So I am simply speaking of county medical societies in general. One of the most important things in any county medical society is that there should be absolute harmony in the society, for you know that a house divided against itself will fall. The officers should lay stress on the fact that everything in organized medicine begins at the county medical society level; that each and every member has equal responsibility; that each and every member is a liaison officer in his community; and, that the strength of the state medical society depends on the strength of each and every county medical society.

Now, as to the general practitioner. There seems to be quite some concern at the present time about the shortage of the general practitioner in the U. S. Especially is this true in the rural districts. The number of doctors in the U. S. has increased 17% since 1940, while the population of the U. S. has increased only 12%. During the past year there were 22,739 students in 77 medical schools in the U. S., 5,543 of whom completed the courses and graduated; and, according to statistics it shows that there is at the present time one doctor to every 760 people in the U. S. You cannot say there is a shortage of doctors, but there is a shortage of the doctors known as the general practitioners. The accepted definition of a general practitioner, I quote: "The committee to study the conditions of general practice authorized by the house of delegates in June, 1947, and appointed by the Board of Trustees of the A. M. A. defined a general practitioner as a legally qualified doctor of medicine who does not limit his practice to a particular field in medicine or surgery." Unquote.

The family physician is what the public call a general practitioner. If we were to classify the general practitioner in order of rank as compared to the many other branches of medicine and surgery, I think that the general practitioner would be the lowest ranking one. However, the fact that the number of his kind is getting fewer and fewer is what is causing all this concern in the A. M. A., and the general public also is complaining about there being so few family doctors. So much so, that the A. M. A. has taken steps to develop more general practitioners, and is using various means to encourage men to stick to general practice. But there is one program that the A. M. A. is sponsoring that I certainly do not approve of and that is the selecting of the most outstanding general practitioner in the U. S. and I quote:

"*Change Method of Selecting General Practitioner.* With more and more attention being directed to the second annual A. M. A. Interim Meeting to be held in St. Louis, Nov. 30 to Dec. 3, 1948, attention is called to the resolution, adopted by the House of Delegates at the Chicago session in June, changing the method of selecting the outstanding general practitioner of the year. The selection is made at the Interim Session.

"The resolution, which was introduced by Dr. E. S. Hamilton in behalf of the Illinois State Medical Society, set out that the first award was made at the A. M. A. Meeting in Cleveland last January, but was 'marred by confusion and misunderstanding.' The resolution said it was desirable to set up some defi-

nite procedure for the selection of the A. M. A. practitioner of the year, recommending that the selection originate at the county society level and proceed through state organizations so that local or state groups and individuals may pay tribute to the family physician of their choice. The resolution set in operation the following plan:

1. "Each county medical society shall be urged to name the candidate of its choice as the outstanding general practitioner for the year within its jurisdiction, basing its selection on nomination and recommendations from any responsible source, lay or professional.

2. "The name of each candidate so chosen by a county medical society, with all pertinent data, including recommendations of lay groups and individuals, shall be submitted by the county medical society to the state medical society of which it is a component part.

3. "Each state medical society, through whatever agency each may designate, shall select from among the candidates submitted by its component county medical societies one name to be declared the outstanding general practitioner within the state.

4. "The candidate so selected at the state level shall be the sole candidate from that state, and his or her name, with all pertinent supporting data, shall be submitted to the Board of Trustees of the A. M. A.

5. "The Board of Trustees shall select from the names submitted by state societies the names of three persons, these names to be submitted in turn to this House of Delegates, which shall select one name to be declared the outstanding general practitioner of the U. S. for the year.

6. "Any state medical society desiring to do so may establish and confer a suitable award with fitting public ceremony on the physician it has named as the outstanding general practitioner of that state for the year." Unquote.

Now I have gone over this plan very carefully and tried my best to find just one way in which the man selected would be benefited, and I have failed completely. I can, however, point out where every step in the carrying out of such a program will cause trouble right from the community in which the doctor lives, on up to and including the A. M. A. First, it will cause contention and jealousy in his community. It will cause all kinds of unpleasant discussions and jealousy in the county medical society. It will cause the same thing in the state medical society, and when the selection is finally made by the A. M. A. there will be one state agreeing with the A. M. A. and 47 states disagreeing with the A. M. A. Last year was the first year of this program and they admitted that there was confusion and misunderstanding; yet, they urge each and every county medical society to name the candidate of their choice. I sincerely hope that the members of each and every county medical society in this state will think the matter over well before they adopt such a program, for I am not inclined to think that any of you would want your patients and friends, both lay and professional, to go around and solicit votes for you. Neither do I think that you would care to appear in the public square and be acclaimed the most outstanding general practitioner in your community or in your state. I think that there is still enough dignity left in the medical profession to prevent any such actions.

I am not a mind reader, but I can just about tell you what most of you are thinking at this moment. You are saying to yourselves, well if you are opposed to the present method, then what have you to offer in its place? Gentlemen, that is a big question! I am, however, going to offer a few timely suggestions and you can take them for what they are worth. If you are treating a case your chances of affecting a cure are very much better if you know the cause of the disease that you are treating. That's true, is it not? Now, the A. M. A. knows the reason why there is a shortage of general practitioners. Men are abandoning general practice to become specialists. At this point, I can't resist the temptation of injecting just a little humor into my remarks. Dr. E. W. Elliott of Washington, D. C., a meritous president of Purdue University, was reading a paper not too long ago and when he was discussing the specialist and the general practitioner he gave his own definition of a specialist and also of a general practitioner. He said, and I quote: "A specialist is a man who knows more than he is ever permitted to

tell. A generalist (which may be applied to the medical profession) tells more than any man should be permitted to know." Unquote. As I said, the A. M. A. knows that the general practitioner is discontinuing general practice and is taking up some special line. But they do not know why he is doing this. So don't you think that it would be the logical thing to do to try and find out why? And don't you think that the logical way to find out would be to consult the general practitioner and find out what the trouble is, and then try to remove that trouble? Don't you think that if you want more young men to become general practitioners that it would be a good idea to contact these young men during their senior year and paint a true picture of the life of a general practitioner today, not of the general practitioner of fifty years ago? Show these young men what is at the end of the rainbow. Show them that a man can continue in general practice all of his life and still become one of the greatest men in the field of medicine and surgery. For when a man in general practice becomes so expert in all the branches of general practice he automatically becomes an internist and, gentlemen, an internist is one of the most valuable men in the medical profession. He is not a specialist. He is what I would call a glorified general practitioner.

Whether or not I have succeeded in contributing anything of any value, whether or not I have succeeded in painting a picture that is worth looking at, I do not know. I do know that I have succeeded in doing just one thing: I have given you the opinion of a general practitioner.

THE CLINICAL SIGNIFICANCE OF HEMOPTYSIS IN CHRONIC NON-TUBERCULOUS DISEASES OF THE CHEST*

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Hemoptysis, blood spitting, occurs as a symptom in chronic non-tuberculous disease of the chest more frequently than is commonly suspected. Until recent years hemoptysis was synonymous with and almost pathognomonic of pulmonary tuberculosis with a consequent neglect of differential diagnosis and the psychological effects of hemoptysis. Patients were sent to sanatoria with a diagnosis of tuberculosis and remained for indefinite periods, positive evidence never being obtained. It is not uncommon today to find a patient with hemoptysis giving a history of having been diagnosed tuberculous years before never having had a positive sputum but so labeled because of the hemoptysis. Today most observers recognize that more than 50% of the cases of hemoptysis in chronic chest diseases are non-tuberculous.

Almost any disease affecting the respiratory system may cause blood spitting. Rubin[1] states that "The vascularity of the organs, the dilatation of the pulmonary and bronchial arteries in the presence of disease, the intimate contact of the capillary circulation with the alveoli and the external communication of the bronchi provide an ideal arrangement for blood spitting."

Hemorrhage is usually slight in acute pulmonary disease but may be profuse in the chronic disease. It is frequent in bronchiectasis, carcinoma of the lung, abscess of the lung, and tuberculosis. It is often difficult to ascertain the site of the bleeding. In bronchiectasis and carcinoma affecting the larger bronchi it usually originates in one of the bronchial arteries, whereas in tuberculosis it is apt to arise from the pulmonary arteries.

The patient who consults the physician because of blood spitting is usually confused as to how it happened. The placid type minimizes the amount while the nervous high strung individual is extremely upset upon noticing a few blood streaks in the sputum following a prolonged spasmodic cough. In some instances the patient may state that he was awakened during the night with a salty taste in his mouth which proved to be entirely blood. Some are positive the blood came from the nose or nasopharynx. In these examples the patient may have no knowledge of a chest disease. Modern methods of roentgenologist, bronchologist and pathologist obtaining a positive diagnosis in most cases and the rapid advances in thoracic surgery affecting cures in those previously condemned to invalidism or death place a heavy responsibility upon the general practitioner and internist to be chest

* From the Chest Clinic, Memorial Hospital, read before the Medical Society of Delaware, Wilmington, October 14, 1947.

conscious and alert to follow through toward an early diagnosis in all cases of hemoptysis.

It is the purpose of this discussion to familiarize you with the steps necessary for an accurate diagnosis and what to expect when proper treatment follows. Close cooperation and teamwork among the various specialties is absolutely essential in reaching an agreement as to the proper diagnosis and decision as to treatment. The specialties represented in a well functioning chest clinic are: internist, radiologist, bronchologist, pathologist, oncologist and thoracic surgeon. No attempt is made to place these in the order of their importance, each being of equal value. It is the policy at the Memorial Hospital that no major chest case is operated upon until the case has been freely discussed at a conference of all the members and a group opinion reached.

How do we proceed toward a diagnosis in hemoptysis? A careful history is as important as it is in any medical or surgical case but in many instances is more accurately obtained after observing an x-ray of the chest. Unexplained hemoptysis demands an x-ray, interpretation of which leads to interrogation along lines conforming to the x-ray findings. For example, roentgen impressions of exaggerated bronchial markings in the bases of both lungs suggesting a presumptive diagnosis of bronchiectasis leads to questions regarding past chest history such as long standing productive cough, hemoptysis, repeated attacks of pneumonia or bronchitis, etc. The physical examination of the chest in chronic disease is not as valuable as in acute respiratory disease, many of the findings being masked because of changes as the result of long standing pathology. Disregard of the physical findings is not advocated but it is important to realize at the onset that not much will be learned by such an examination toward locating the origin of hemoptysis. Physical signs may be entirely absent.

X-ray of the chest may result in positive, presumptive, or negative findings. Discovery of a lesion suggesting tuberculosis followed by a report by the bacteriologist of acid-fast bacilli in the sputum gives sufficient evidence to support tuberculosis as the origin of the hemoptysis. However, as will be reported later, negative x-ray findings do not mean that the patient may not have endotracheal or endobronchial ulceration which can be diagnosed only by the bronchologist. The x-ray examination may reveal increased bronchial trunk markings suggestive of bronchiectasis. It may reveal a chronic abscess or evidence of atelectasis due to bronchial obstruction associated with a bronchial tumor, foreign body, or granulations. In addition, x-ray may demonstrate evidence of a solitary tumor. X-ray examination of the chest may be entirely negative for any pathology and yet the patient may be constantly expectorating blood. It is particularly in the latter group that bronchoscopy is indicated as a means of diagnosis to determine the origin of the blood spitting. Bronchoscopy must be followed by bronchography in some cases to obtain a positive diagnosis.

Thus the steps to be taken in hemoptysis are in order: history, physical examination, chest x-ray, sputum examination, bronchoscopy, bronchography, bacteriological examination of the aspirated bronchoscopic secretions, and pathological investigation of tissue and secretions obtained at bronchoscopy. All of these procedures may fail to locate the origin of the blood spitting and failure may be attributed to a lesion in a bronchus not yet causing bronchial obstruction or in a bronchus not visible by bronchoscopy or to some other disorder not considered a chronic chest disease. Bronchiectasis, carcinoma or lung abscess etc., are diseases known to cause hemoptysis. Consideration of therapy follows all these procedures and will be discussed later.

Bronchiectasis is generally accepted as being next in frequency to tuberculosis among chronic chest diseases, but it is thought by some to exceed tuberculosis.[2] Bronchiectasis is derived from the Greek meaning bronchial dilatation. The cause of bronchiectasis is most likely bronchial obstruction plus infection and thus may follow atelectasis. There seems to be considerable discussion as to the pathology of bronchiectasis; that is to say whether actual dilatation occurs or whether the impression of dilatation is only apparent due to destruction of cilia, mucosa and muscularis.

"The changes must be considered for the

most part irreversible. Removal of a foreign body or other obstruction may relieve the symptoms and medical treatment and conservative therapy may change it from a wet to a dry bronchiectasis but the pathological changes of dilatation and fibrosis remains. Whether the changes occur as a result of pulling force, a dilating force or a destructive process the fact remains that there results a dilated, fairly rigid, walled, fibrosed structure which will not return to its original condition.''[3]

However, there may be accepted a prebronchiectatic state in which bronchoscopic aspiration of obstructing secretion or removal of a foreign body may prevent an actual bronchiectasis. It must be repeated however, that once established bronchiectasis is permanent. Thus it is clearly evident that early diagnosis is paramount and it may be said that the general practitioner, internist and roentgenologist stand in the first line of defense against bronchiectasis. Early recognition of atelectasis, refusal of accepting a diagnosis of unresolved pneumonia are their responsibilities and contribution toward preventing development of bronchiectasis. This is particularly important in localized atelectasis in a child. The progress made in the past two decades in the understanding and treatment of bronchiectasis constitutes one of the most remarkable accomplishments of modern medicine. The time has come to diagnose all coughs and not consider them as chronic bronchitis, sinobronchitis or asthmatic bronchitis.

The history of recurring bronchitis, atypical pneumonia, chronic productive cough and hemoptysis must spur the attending physician to a definite diagnosis. History, physical signs to a certain degree, x-ray examination and bronchoscopy contribute to a presumptive diagnosis but a positive diagnosis may be made only by bronchography. Modern technique of thoracic surgery has made it necessary for a diagnosis to the full extent and exact location of the bronchiectasis and this is accomplished only after conscientious, time consuming, careful mapping of the entire bronchial tree with opaque oil. It must not be assumed that an area not filled with oil is or is not bronchiectatic. Bronchiectasis is now known to be segmental in distribution and not lobar. Today the thoracic surgeon is able to resect a segment or segments of diseased lobes thus saving normal structures and preventing hyperplasia of the remaining tissue and preserving vital capacity. The high mortality rate of bronchiectasis without surgical treatment is appalling. Nehil[4] mentions some 60% five years after the diagnosis is made. The necessity of surgical cure is not only for the relief of symptoms but for the mortality of later years. The figures on the mortality rate of those dying untreated before 40 years of age are astounding. Not many years ago the mortality rate for pulmonary resection was between 40% and 50%. Today in the hands of experienced surgeons it is as low as 3% and the younger the patient the lower the mortality rate, another argument for early suspicion and subsequent diagnosis. The advent and use of sulfonamides and penicillin pre- and post-operatively plus the improved technique have contributed greatly to the reduced mortality rate in surgical treatment.

Scarlett[5] states first that the mortality rate in non-surgically treated cases is between 30% and 50% within a 15-year period after onset of symptoms: secondly that those in whom it develops before 15 years of age are unlikely to live beyond 40 years of age; thirdly that the vast majority will ultimately die of the disease or its complications and fourth that the morbidity of the disease from physical and psychological standpoints is devastating. Those who live are not happy because of the presence of the foul offensive pus.

The relationship between bronchiectasis and sinusitis has long been the subject of much discussion. The conception now is that sinusitis is an associated condition in the bronchiectasis patient whose respiratory tract is in the state of lowered resistance. It has been noticed by us as well as by others that the sinuses may be involved secondarily and clear up when the chest pathology is removed. Hedblom[2] reports only 8 cases in 552 of bronchiectasis with evidence of sinusitis preceding the development of bronchiectasis. Others report that the majority of cases had evidence of bronchiectasis for several months and years before the onset of chronic sinus diseases. All observers have noted that many patients with bronchiectasis have not or never have had sinus-

itis. The moral may well be—given chronic sinusitis search for bronchiectasis.

The complications to be expected are atypical and recurrent pneumonia, lung abscess, empyema, emphysema and amyloid disease plus the fact that the patient is an invalid and susceptible to other diseases. Non-surgical treatment of bronchiectasis has its place only in those cases considered non-operable for various reasons such as a generally poor risk, extensive widespread disease and for those who refuse surgery. Medical and conservative treatment may reduce the amount of pus expectorated and aid secondary pneumonitis but does not prevent complications or aid in reduction of the morbidity or mortality rates. Such treatment consists of postural drainage, repeated bronchoscopic aspiration, general supportive treatment and the use of the sulfonamides, penicillin and autogenous vaccine therapy.

Alexander[6] concludes that the results of sulfonamide therapy are generally disappointing except that they may control superimposed pneumonitis.

Aerosol penicillin may help 50% temporarily. Penicillin is best used intratracheally and the result is difficult to analyze. Many report marked success with the use of penicillin but it is generally accepted that these results are difficult to analyze.

Hemoptysis may be the presenting symptom in carcinoma. Blood spitting is a frequent symptom of bronchiectasis usually not profuse and often not the symptom for which the patient consults the physician but it is very likely to be the chief complaint in carcinoma of the lung. In patients past 40 years of age particularly, a history of hemoptysis calls for a thorough investigation exhausting all methods of diagnosis as it may be the only symptom of carcinoma of the lung.

The incidence of carcinoma of the lung is definitely increasing. Observers vary as to its relative frequency compared to malignancy of other organs. That it is more frequent today is not due entirely to earlier and increased recognition although it is true that modern methods of diagnosis reveal positive evidence of the disease in patients formerly not suspected. Another contribution to the apparent increased incidence of carcinoma of the lung is greater longevity.

The etiology is obscure, as it is in carcinoma elsewhere. It is found in males about six to seven times more frequently than in females. Although the average age is in the fifth decade it may occur in the second or third decade as does cancer in other organs. It usually occurs in a patient previously considered well, there being no previous chest history. The symptoms may be single or multiple and chiefly are hemoptysis, cough and pain in the chest. Althogh the patient may admit a cough over a period of years he will state that the present cough seems to be different. Many are first observed because of the acute respiratory infection, often diagnosed as pneumonia or pneumonitis. Physical signs and x-ray findings in a patient of the so-called cancer age persisting beyond the normal length of time for such an acute affair demands investigation to rule out bronchogenic cancer. Again remember that the diagnosis of unresolved pneumonia is outmoded and one to be forgotten.

X-ray examination will only infrequently show a tumor. However, it does very often indicate an atelectasis of a lobe or part of a lobe of the lung secondary to bronchial obstruction so that a presumptive diagnosis may be made. However, if a bronchial neoplasm be present and not yet causing obstruction roentgen examination may be entirely negative. One of the cases in our series with marked and continued hemoptysis had negative x-ray findings and yet bronchoscopy revealed an inoperable cancer of the carina and both main bronchi. X-ray examination of the chest may show an involvement of the parenchyma or an atelectasis without the patient having any symptoms whatsoever.

Unfortunately the symptoms of primary cancer of the lung as we know them are evidences as a rule of long standing disease, so that despite marked advances in thoracic surgery securing a very low mortality rate many of the patients are inoperable when first considered for surgery. Strieder[7] and others estimate that between 10% and 25% of carcinoma have metastases, cachexia, or such marked evidence of advanced cancer when first considered for surgery that they are obviously

inoperable. Of the remainder operated upon the majority qualify for pneumonectomy either as a curative or palliative procedure. The thoracic surgeon has given us a definite challenge. He will cure the patient if the diagnosis is early. How may an early diagnosis be accomplished? Granting that we are cancer conscious in hemoptysis, atelectasis, and atypical pneumonias and therefore follow through with x-ray and bronchoscopy, how are we to see the patient with such evidence early enough for the surgeon? Annual x-rays of the chest by industrial plants and mass surveys may supply cases at least before symptoms develop. The majority of bronchogenic tumors arise in a large bronchus visible with the bronchoscope and it is accepted that in 60% a positive diagnosis may be made by biopsy of the lesion. In addition, the pathologist has now given further aid in examination of secretion aspirated at bronchoscopy. Clerf and others have shown a higher percentage of positive secretion than positive findings from biopsy. The lesion may be in a small segmental branch bronchus not visible with the bronchoscope and yet pathological examination of aspirated secretion may obtain a positive diagnosis of cancer.

Exploratory laparotomy is generally accepted by the medical profession when surgical abdominal disease is suspected even though positive diagnosis has not been made. Certainly, exploratory thoracotomy is no more hazardous than exploratory laparotomy.

Pnemonectomy is the only operation in proven bronchogenic carcinoma. Exploratory thoracotomy is accepted by many and should be accepted by all in any suspected case which does not show evidence of metastases beyond the hemi-thorax, with arrangements for pneumonectomy if the diagnosis of tumor is confirmed at operation. In most cases of bronchogenic cancer it is impossible to rule out metastatic spread prior to operations, that is metastases confined to the involved thorax. We believe in and practice palliative pneumonectomy even upon those who at operation show evidences of metastases in the chest, chiefly upon the theory that removing the tumor gives the patient an easier few months although not accomplishing a cure. Unless the lung is removed bronchial obstruction with subsequent infection develops and the patient has complications for which no help is available. A pneumonectomized patient, provided he is a good surgical risk, makes an excellent recovery. One patient operated upon under local anesthesia in the morning was out of bed the same evening. All are out of bed on the following day. In our opinion palliative pneumonectomy offers more than palliative radiation therapy. There are many admitted reasons for failure of radiation treatment particularly inability to localize the tumor and thus prevent concentration of the radiation. In addition, the object of treatment in the thoracic cage is too far from the source of the rays. Further, many of the patients may better stand pneumonectomy than intense x-ray therapy. Radiation treatment has probable value in post-pneumonectomies if the surgeon localizes glands impossible to remove at the time of operation.

Bronchoscopy may give presumptive evidence of carcinoma if positive evidence is not present, namely, widening of the carina, peribronchial stenosis, and distortion of a bronchus.

Aspiration biopsy is mentioned by many authors only to be condemned. We practice such a procedure if a tumor is suspected by x-ray and other evidence is lacking, particularly in such cases in which a radio-sensitive tumor is suspected and surgery is not indicated. Although our series is small the complications feared by those opposed have not occurred. It is pointed out by the opponents that the reward of positive evidence is not compensated for the danger of infection, pneumothorax and implantation.

As a summary may it be restated that the surgeon can cure cancer of the lung if he gets the case early and it is our responsibility to be cancer conscious and make an early diagnosis. The question has been asked of the surgeon: why operate upon these patients when only a small percentage are curable? His reply must be that non-surgical treatment results in 100% mortality.

DISCUSSION

DR. W. M. PIERSON (Wilmington): Time does not permit a review of many cases, but we hope that the citing of a few cases will emphasize some of the points made by Dr. Beatty

as well as to give you a practical demonstration or illustration of the methods necessary for an accurate diagnosis in hemoptysis.

The first case is a patient 21 years of age who had pneumonia at six months of age with subsequent pneumonia at five years of age with a rib section for empyema. She had no hemoptysis. She had been well except for chest symptoms and was referred to us. An x-ray examination revealed a lesion in the lower left chest which the roentgenologist considered to be presumptive of bronchiectasis. The bronchogram taken after the bronchoscopy revealed evidence of bronchiectasis in the lower left lobe. It is not well shown here because of the shadows that are behind the heart. In the actual film we see marked evidence of bronchiectasis in the lingular lobe. In the lateral view the bronchogram shows marked evidence in the lower left lobe, but you notice that the superior branch of the left lower lobe is filled but it is free of evidence of bronchiectasis. She does have evidence of that in the lower lobe.

Before these cases are presented for surgery it is necessary to map the entire lung. Consequently, before this case was surgically decided upon it was necessary to put oil into the right side, and the next slide will show that the right side is filled satisfactorily enough to rule out any evidence of bronchiectasis.

It was discussed at a chest conference and a lower left lobe resection was decided upon, removing the four branches but leaving the superior branch of the lower left lobe. Segmental resection permits retention of tissue that is valuable, and we consider that the superior branch in the lower lobe is sufficient to make it worth while to leave it intact. Consequently she had resection of the four branches and the lingular branch of the left upper lobe. She made a satisfactory recovery except the second day after operation she developed a temperature. She seemed to be unable to get up the secretion and x-ray examination showed some evidence of bronchiectasis.

She had a bronchoscopy at which time a large amount of thick, pure secretion was aspirated. She seemed to do very well except she did expectorate and cough up secretion similar to that she had prior to operation.

(Slide) A subsequent bronchogram was taken and after operation there was still some evidence of bronchiectasis. You recall we showed you a slide taken of a bronchogram before operation in which this branch was the superior branch. After operation she continued to expectorate the same type of secretion, and we find by bronchogram she has bronchiectasis in this particular branch. This is due to the obstruction, after operation, due to secretion blocking up the bronchus, failure to completely aspirate or aspirate sufficiently frequently to keep the bronchus open and resulting in bronchiectasis.

Unfortunately, this means that she will have to return for further surgery so that she has a complete cure.

(Slide) The next case is a patient 37 years of age. He had complete hemoptysis. Previous history: only a chronic cough for which he did not seek medical attention. The hemoptysis was quite severe. Bronchoscopy revealed pus similar to that found in bronchiectasis but did not reveal the source of bleeding. The x-ray examination revealed evidence of pathology in the lower right chest that the roentgenologist considered to be presumptive evidence of bronchiectasis. The bronchogram taken after the bronchoscopy in the AP view revealed no evidence of pathology. We were uncertain as to whether all the branches were filled in the AP view, but the lateral view gives us a story.

(Slide) In this third picture we see evidence of filling of the branches of the lower lobe except for the medial basal branch depicted here. The superior branch, the posterior and lateral and the anterior branches were filled. There is only a little bit in the middle lobe bronchus so we are not able to say for certain that the patient had bronchiectasis of the middle lobe.

Subsequently oil was introduced again to fill the middle lobe hoping to fill this branch. The oil did fill the middle lobe and ruled out evidence of bronchiectasis in the middle lobe.

About this time the patient was free of bleeding and had quite a workout and we were satisfied to give him a rest and let him go home for a short time and report back for further observation and checkup. We knew that his bleeding was coming from some place al-

though we had not yet determined the origin. Weeks later he called up and said he had had quite a lot of bleeding, so he came back to the hospital and had another bronchoscopy. At this time they saw bleeding from the medial basal branch of the right lower lobe, the same branch not filled in either this bronchogram or this one.

We knew we had the source of bleeding but did not know the pathology. Oil was again put in, but this time instead of being placed in by gravity it was put in with a catheter inserted through the bronchoscope directly in the medial basal branch of the right lower lobe, with the following result, showing evidence of bronchiectasis in the medial base of the right lower lobe.

He was considered at a conference and a segmental resection of the right lower lobe was decided upon. He had removal of the medial basal branch and part of the anterior basal branch. At operation he showed a large organized clot in that medial basal branch of about 2 cm. He has had no more bleeding and does not have any more cough.

(Slide) This is merely a bronchogram after operation and shows no evidence of pathology.

(Slide) The next case is a man 33 years of age who was perfectly well up until November, 1946. He was refused by the Draft Board, however, in 1941 because of a heart condition. He did not know the nature of this heart condition and had never had any symptoms, but was told they would not take him in the service. In November, 1946, he developed dyspnea and naturally felt that his heart was the origin of the dyspnea. He received medical treatment and care. Six weeks later he developed hemoptysis which persisted for three or four weeks daily, and he then was referred to us. X-ray examination revealed a lesion in the right side of his chest showing a shadow that is not consistent with any abnormal heart shadows and the roentgenologist was of the opinion that it was a tumor. The x-ray revealed evidence of pathology that the roentgenologist felt was a tumor and it proved to be in a location that bronchoscopy and surgery later proved, so that they were correct in their diagnosis. On bronchoscopy the patient had a granulation in the right main bronchus with profuse bleeding and stenosis of the bronchus apparently of extra bronchial origin in addition to the tissue in the bronchus. Aspiration of the secretion and biopsy of the lesion in the bronchus led the pathologist to give a report of the secretion and the tissue as being bronchogenic carcinoma.

(Slide) A bronchogram was done on this patient although it is not customary for us to do bronchography in carcinoma of the lung. We were not sure under bronchoscopic examination that this patient had a cancer. We presumed he might have had even bronchiectasis and were taking further steps in the study.

I don't know whether you can see it or not but the bronchogram shows evidence of obstruction at the same level we found in bronchoscopy.

The case was discussed at conference and we decided that he should have a pneumonectomy. Operation was performed and the lung was removed and a few glands were observed suggesting metastatic involvement proved by pathologists to be a metastasis. He was operated on in March, 1947. He is an automobile mechanic doing his daily work and has had no further symptoms except some pain. He also was followed, however, by some x-ray therapy because of the finding of the glands.

Now, in conclusion, I would like to give just a few figures on our work. We do not have enough cases to draw any conclusions of any national importance, but we would like to say that we have two cases operated on more than five years ago still living, both men, one man now 67, the other man in his early 50s. They showed no evidence of metastasis at operation and have been doing very well.

We have another patient who lived eight years following pneumonectomy and died of a cardiac condition. We also have a patient who had been operated on almost three years now, a female, who is doing satisfactorily.

The reports of surgery indicate that 10 per cent of these cases may be cured. It is not a high percentage, but, as Dr. Beatty stated, it is higher than non-surgery treatment.

DR. JOSEPH M. MESSICK (Wilmington): Hemoptysis, as Dr. Beatty has said, is a symptom, not a disease, but it is a very serious, important and challenging symptom. It always means pathology, which pathology usually is

serious in terms of the morbidity if not indeed mortality. Each patient alike may not, therefore, dismiss the symptom that it probably came from the nose and throat and which the physician hopes is so and the patient accepts such an explanation through ignorance. Hemoptysis is a symptom, for our purpose, of a chronic disease. We are now considering the acute disease of which hemoptysis is an obvious symptom. If we are going to help the patients we must get them early. How are we going to get them early? Make a plea for the widespread x-raying of the chest of all people, not just patients: that is, people who come in sick.

Dr. Beatty has mentioned the surveys done by industry, by public health units, etc., but these cover too small a portion of the population. Too few physicians encourage their patients to have annual examinations. Too often these do not include x-rays of the chest.

In connection with x-ray, I should like to say that the roentgenologist is the key figure. Not only must he be competent, but he must call attention to very early lesions, and they must be investigated immediately if a patient is going to be helped. What can we do then to get these patients early? We can have all people encourage them to have periodic examinations which shall include an x-ray of the chest. We can work toward the goal of universal x-rays. We can forget such things as unresolved pneumonia. We can have coughs of over six weeks' duration investigated immediately.

One other point in regard to palliative pneumonectomies. Certainly for a patient with a bronchial cough palliative pneumonectomy can make his last days less horrible.

This group certainly ought to be congratulated on their recognition of the need and fine teamwork and execution of the program they have been carrying out.

DR. I. M. FLINN (Wilmington): It might be worth while to emphasize that in addition to the accurate and immediate investigation of the non-tuberculous group of cases that show hemoptysis all cases of hemoptysis, even though they are thought to be tuberculous, should also be investigated early. Because of the modern-day treatment, minor surgical procedures, at times major thoracic surgical procedures, may mean a cure, and an early cure, in those cases which heretofore may have merely been put to bed to rest to await developments.

Also in the increasing number of x-rays suggested and to be made, do not expect the roentgenologist to give an accurate diagnosis at the first glimmer that there is something wrong in a chest. His responsibility should be to call attention to the fact that it is not normal and that that chest should be followed closely and more accuurately than the once-a-year or the routine which may be established for the normal individual.

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PATENT DUCTUS ARTERIOSUS
Report of an Infected Case With Surgical Cure*

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This case is being reported for three reasons: it is believed to be the first case operated upon in the state of Delaware; the lesion was infected with *streptococcus viridans;* and *caronamide,* a new drug at the time, was used with penicillin in the pre-operative preparation of the patient.

I shall not review the literature on this subject as it has been done recently in the July, 1948, issue of the *Delaware State Medical Journal* by Flanders and Durham.[1]

CASE REPORT

M. F., a 19-year-old female, was admitted to the Memorial Hospital, on June 19, 1947, complaining of fever, sweats, and amenorrhea since April, 1947.

The past history revealed that she was born a "blue baby" and was told that she had a "heart condition" in childhood. In later years she occasionally became cyanotic when exposed to cold or upon exertion; this was best seen in the finger nails. The remainder of the

*From the Chest Group, Memorial Hospital. Patient referred to the Chest Group by Leslie I. Maske, M. D.

past history and the family history was irrelevant.

The patient was well until April, 1947, when she first noticed a fever, not daily at first, which began about 10 a. m. and reached its peak in the late afternoon. Sweating was profuse as the fever subsided and she felt chilly but there were no frank chills. During the remissions she felt well and was up and about. About the first of June, 1947, the fever began to recur daily and she consulted a physician who prescribed oral penicillin, exact dosage unknown. While taking the drug, the temperature remained normal and she felt perfectly well. When the drug was discontinued, however, the fever returned and the patient was hospitalized with the diagnosis of subacute bacterial endocarditis.

Examination revealed a young white female who did not appear acutely ill. No petechiae nor ecchymoses were seen and the presence of cyanosis was questionable. The temperature was 103° F. (oral), the pulse 132, and the respirations 24. The blood pressure on admission was 118/50; subsequent estimations were in this general locality. There was no evidence of cardiac enlargement. There was a systolic thrill in the second interspace to the left of the sternum. A machinery-like murmur, continuous through systole and diastole, was heard in the same area. The pulmonic second sound was present but was not accentuated. The murmur was transmitted up and to the left; it also was heard posteriorly in the interscapular region. The remainder of the physical examination revealed normal findings.

Laboratory studies: Red blood cells—3,690,000. Hemoglobin — 11.0 gms. White blood cells—14,500 with 86% polymorphonuclear cells. Agglutination tests for typhoid, paratyphoid, brucella, and rickettsial organisms were negative. Blood cultures taken the first two hospital days were positive for *streptococcus viridans;* one taken on the fourth hospital day (prior to antibiotic therapy) was negative. Sensitivity tests in vitro showed the organism to be moderately sensitive to penicillin and resistant to streptomycin; quantitative sensitivity tests were unavailable. The Friedman test was negative. The sedimentation rate was 22.5 mm. in 1 hour.

Fluoroscopic examination revealed the heart to be normal in size, shape, and dynamics. There was no "hilar dance" visible. A six-foot film confirmed the fluoroscopic findings and, in addition, reported the lungs to be clear but with prominent bronchial markings, especially in the right lower lobe.

The electrocardiogram was entirely normal, there being no evidence of myocardial damage nor of ventricular preponderance.

On June 24, 1947, five days after admission, intensive penicillin therapy was begun. Approximately one million units were given daily for six days by continuous intramuscular drip in the anterior thigh muscles. Total dosage from June 24 to June 30 was 5,340,000 units. The temperature became normal 24 hours after the penicillin was begun.

Caronamide**, 3 grams every 3 hours by mouth, was started two days after penicillin was begun in an attempt to effect a "renal blockade" and produce higher penicillin levels in the serum. After taking 52 grams of caronamide, the patient vomited once, retained the next dose, vomited the next dose, and then took two final doses of 3 grams each. She then had received a total dosage of 64 grams of the drug in 48 hours. The drug was discontinued at this time because of a temperature rise to 102.6° F. followed by a rise to 104.4° F. the following day. It was felt that this was a drug reaction, despite the absence of diarrhea and rash, because of the nausea, vomiting, drowsiness and fever. There was no other cause found to account for the fever.

On June 30, 1947, in the Memorial Hospital, Wilmington, this patient was operated upon while under endotracheal cyclopropone anesthesia, by Dr. Charles P. Bailey who found, ligated, and divided a patent ductus arteriosus which was less than one centimeter in length and more than one centimeter in breadth. A flap of free pleura was sutured between the two ends of the divided ductus.

The thrill and machinery-like murmur disappeared immediately but a soft, systolic murmur over the pulmonic area has persisted to date.

Penicillin was continued post-operatively, 100,000 units every two hours (intramuscularly) for six days and then 30,000 units every

** Caronamide supplied by courtesy of Dr. Christopher C. Shaw of the Sharp & Dohme Research Laboratory.

three hours for two days. It then was discontinued.

The patient was out of bed on the first post-operative day. The course was entirely uneventful except for a sudden profuse discharge of pinkish, serous fluid from the incision on the ninth post-operative day. She also complained of hoarseness and examination revealed paralysis of the left vocal cord. While this hoarseness has persisted, it has become much less severe and at present is barely noticeable.

At present, this patient has been followed over a period exceeding one year and has been asymptomatic, afebrile, and there has been no return of the murmur or the thrill. During this time she became pregnant and on June 13, 1948, was delivered (normally) of a normal male child weighing six pounds and six ounces.

DISCUSSION

Patent ductus arteriosus is a congenital cardiovascular lesion easily accessible to surgical intervention.[2-19] That operation is indicated in all cases with infection, stunted growth, or decompensation (wide pulse pressure; cardiac enlargement; symptoms of cardiac failure) is not questioned. Most observers[4,6,7,13-19] now agree that operation is indicated in uncomplicated cases in childhood or even up into the third decade of life and I am in complete agreement with those who state that operation is indicated unless there is a definite contraindication. One contraindication is the coexistence of another congenital cardiac lesion in which case the ductus may well be acting as a safety valve, the closure of which would be disastrous to the patient. I would hesitate to recommend operation in a patient less than five or six years of age since it has been reported[4,20] that a patent ductus may close spontaneously at this age. On the other hand, the presence of sclerosis of the vessels increases the hazard of operation. In proper hands, the operative mortality in cases so selected is low, certainly much lower than the risk of complication at some later date.

The brief use of caronamide in this patient does not permit the drawing of any conclusions regarding its efficacy in producing a "renal blockade" against the excretion of penicillin.

In the case of the four-year-old child presented by Flanders and Durham,[1] the x-rays and cardiograms should make one suspicious of the presence of more than one cardiac lesion. There is no evidence presented for their statement that the T wave changes are "probably transient in nature" in the post-operative cardiogram. A longer follow-up period would settle these questions.

SUMMARY

The case of a 19-year-old white girl whose infected patent ductus arteriosus was successfully operated upon in the Memorial Hospital, Wilmington, is reported with a post-operative follow-up of over one year's duration.

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A CASE OF UTERO-PLACENTAL APOPLEXY IN AN ELDERLY PRIMAGRAVIDA

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The placenta that is normally implanted on the wall of the upper uterine segment does not separate until after the completion of the second stage of labor. Where it separates partially or completely in labor or prior to the completion of the second stage, it is known as an abruptio placentae, a term introduced into the literature by Delee.

Normally, the placenta separates at the end of the second stage because of two factors:

1. Retroplacenta hemorrhage.
2. A shearing action brought about by the uterus contracting aad tearing itself free of the non-contractile placenta. When this occurs, the second stage ends and the third stage of labor begins.

More frequently, however, than one might be led to believe from the literature, the placenta either partially or completely separates prematurely, the end results to the mother and child being dependent on the degree of separation. Because of this, many cases of mild abruption go undiagnosed, being only suspected when an old, organized blood clot or infarct is found on the maternal surface of the placenta, following delivery. On thinking back, one can often recall that this particular patient complained, at some time during her pre-natal period, of a localized tender area on her uterus, which disappeared within a few days to several weeks. Often, the obstetrician can palpate a localized area of tenderness at that time, which gradually disappears.

It is only in marked degrees of abruptio placentae that definite symptoms are noticed by the patient. This usually consists of intense abdominal cramp-like pains, with or without bleeding. Bleeding is wholly dependent on where the separation has occurred and whether or not the blood can find its way down through the cervix and into the vagina. Where the bleeding is rather free the uterine pain is not as intense as where it is concealed. Concealed hemorrhage causes over-distention of the uterus and more severe pain. If the abruption is large, fetal movements usually cease and a fetal heart can no longer be heard, the degree of shock being dependent on the size of the area separated.

Rigby, in 1776, first recognized this condition and called it accidental hemorrhage of pregnancy in order to differentiate it from the bleeding of placentae praevia. Many investigators substantiated his findings. In 1911, Couvelaire described two cases of abruptio placentae in which the uterus appeared bruised and purplish, with poor power to contract. He pointed out that, due to this inability of the uterus to contract, death resulted from pospartum hemorrhage. He believed its origin to be toxic and described the alterations that occurred in the uterus and adjacent structure. He also introduced the term uteroplacental apoplexy. Wilson, in 1922, reviewed the world literature and found 69 cases that fitted Couvelaire's and Williams' description of this condition. Davis and McGee found an incidence of 164 cases out of 40,000 consecutive cases studied in which varying degrees of abruptio placentae occurred, ranging from mild to complete separation. 112 of these cases showed varying degrees of partial separation, or an incidence of 1 in 357 cases, while 52 cases were complete, or an incidence of 1 in 770 cases. Of these 52 cases, 15 showed changes in the uterus, such as described by Couvelaire and J. W. Williams.

The exact etiology of abruptio placentae is not clearly understood. It is thought that the majority of cases occurs in the toxemic patient. However, inflammatory changes in the endometrium and trauma can play a part. C. H. Davis believes that degenerative changes within the serotina may cause the separation or contribute to it. The bleeding is secondary because of the uterine contractions. Williams thought that the placenta had completely matured by the end of 7 months and that retrogressive changes contribute not only to premature separation but also to the separation of the placenta normally in the third stage.

With these few introductory remarks, a case is presented which we think is of interest in several ways. It represents a complete abruptio placentae, with a typical utero-placental apoplectic syndrome.

Mrs. C. C., a 36-year old, para o gravida,

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who had been married 15 years, had her L.M.P. in April (?), 1947. During the early part of her pre-natal course, she had frequent bouts of nausea and vomiting with occasional swelling of her ankles, during the last several months before admission to the hospital. There never was any albuminuria. The day of her admission, 1/27/48, at about 5 p. m., following a supper which she enjoyed, she noticed that her abdomen had become larger. At 10:30 p. m., of the same day, while sitting in a chair reading, the patient felt something warm running from her and when she looked found she was sitting in a pool of blood. Her physician (H. E. N.) was called and he sent her to the Memorial Hospital, where she arrived 11:50 p. m. The pre-natal course showed no evidence of any toxemia, except the ankle edema. There was no history of trauma.

Her Family and P.M.H. were non-contributing.

General systemic questioning showed no G. I. or G. U. complaints, except nausea and vomiting during the early stages of present pregnancy.

Catamenia had its inception at 13 years of age, recurred every 28 days and lasted 4-5 days; the flow was moderate and there was no pain. The patient had a slight leucorrhaea at times.

Physical examination disclosed a well-developed and well-nourished 36-year-old, white female, lying flat in bed, complaining of cramp-like pains in lower abdomen.

The positive physical findings were:

1. Conjunctivae pale.
2. Teeth in fair condition only.
3. B. P., 136/70; P., 100; R., 20.
4. Uterus enlarged to 5 FB above the umbilicus, moderately tense but not board-like and very tender to palpation. The F.H.S. were not heard.

Pelvic deferred until blood obtained and patient prepared for pelvic examination.

Extremities—some edema of ankles.

Impression—complete abruption of placenta and fetal death.

Laboratory work on admission showed Hgm. less than 7½ grms.

R.B.C.—1,950,000.

Urine analysis—(Cath. spec.)—not remarkable.

Course in Hospital. The patient was immediately typed and R. h.'d and 3,000 c. c. of matched blood was obtained and started at once on the patient. Two hours after admission she was taken to the operating room. A careful pelvic examination was performed and it was found that the cervix was long and showed no dilatation. Upon opening the abdomen, the uterus was noted to be quite ecchymotic and had a bluish, bruised appearance. A classical Caesarian section was performed and a large amount of organized prune jelly clots, as well as bright red blood, spilled out of the wound. The child was dead and the placenta was floating free in the uterine cavity—completely detached.

Ergotrate gr. 1/320 was given i. v. immediately after evacuating the uterus, followed by 1 c. c. pitocin into the uterine muscle. The cut edge of the uterus appeared to be infiltrated with haemorrhagic areas and during the closure fresh bleeding occurred from each place where a suture had been placed. Another 1 c. c. of pitocin was given intramuscularly and hot towels and massage were tried for 30 minutes in an attempt to cause the uterus to contract. When, in spite of these measures, the uterus remained atonic and soft, it was decided to perform an hysterectomy, which was done in the routine manner. The cervical stump was suspended to the round ligaments and reperitonealized by the bladder flap. The abdomen was then closed in layers.

Morphine sulphate gr. ¼ was given, following the failure of the uterus to contract and the patient received 1500 c. c. blood, as well as 1000 c. c. of 5% glucose in N.S.S., during the operation. Cyclopropane-nitrous oxide and oxygen anaesthesia was utilized on a closed system, augmented with Curare. During the operative procedure, B.P. maintained itself, but the pulse, which was 100 at the start, had mounted to 130 p. min. at the completion of the operation.

The pathologist's (J.W.H.) report of the uterus was—Gross—The submitted specimen consists of a uterus that is enlarged. The walls are soft and hemorrhage into the muscular coat is noted. One area on the endometrium is necrotic and this extends into the muscular coat. A placenta accompanies the

uterus. The placenta is small and thin, with a necrotic area noted on its maternal surface.

Microscopic—Sections of the uterus show rather massive intramuscular hemorrhage which is more apparent around the small anterioles.

Diagnosis—Couvelaire Uterus.

Upon returning to her room, plasma was started and two units given. Her pulse, which was 140/min., within 48 hours became 80 to 90/min., where it remained until discharge. On the first p. o. day, in addition to 2,000 c. c. 5% glucose in saline, she received 1,000 c. c. blood and, on the 2nd p. o. day another 500 c. c. blood. A Levine tube, attached to a Wangansteen drain was introduced on the 2nd p. o. day. This was removed in 36 hours. With the exception of a blood transfusion reaction on 2nd p. o. day, when temperature rose to 101° and again on the 5th p. o. day, the patient's temperature remained between 99° and normal. Penicillin was started immediately and 2,800,000 units given, I.M. The patient moved her bowels on the 4th p. o. day, when she was placed on a soft diet, followed the next day by a general diet. A count done on the 8th p. o. day showed 10 gms. or 63.5% Hgm. & 2,710,000 RBC. Because of this, another 500 c. c. blood was given. It was found that when the skin clips were removed on the 8th p. o. day a small subcutaneous hematoma had formed, which caused the wound to gap. The patient was returned to surgery and, under Pentathal Sodium i. v. anaesthesia, through and through #30 steel wire sutures were introduced. These were left in for 12 days, when they were removed. The patient was discharged in good condition on her 22nd p. o. day.

Follow-up examination at the end of 6 weeks disclosed a well-healed abdominal wound. Pelvic examination showed a well-supported cervical stump, with no tenderness or induration in either adnexal regions. The ovaries were well-supported and normal in size. The patient, physically, had no complaints.

DISCUSSION

The text book picture of complete abruptio placentae is easily diagnosed. In the average case, however, the patient does not show this syndrome and the diagnosis is dependent on other factors than just signs and symptoms, the most important aid being the blood count. If frequent counts show a progressive advancing anemia—active steps should be taken.

Blood pressure usually maintains itself during the early stages of abruptio placentae, not dropping until hemorrhage has progressed to such a degree as to cause shock. Especially is this true in cases of concealed hemorrhage. Where bleeding occurs visibly, one is more liable to see rapid drops in the blood pressure.

Board-like rigidity of the abdomen is not seen in cases of visible bleeding, as in these cases the uterus is usually not over-distended. Only in cases of concealed hemorrhage is this phenomena usually observed. In the case under discussion the abdomen was tense, but could be indented with the palpating fingers.

Tenderness, however, is usually a constant sign and in this patient, even though the uterus was not board-like, it was acutely tender to touch. Deep breathing also caused pain, showing that there was an associated peritoneal irritation. The cause of the abruption here can only be guessed at. There definitely were no signs of toxemia of pregnancy and when the abruption occurred, the patient was sitting reading a book. Close questioning, following her recovery, did elicit the fact that, for several minutes before she noticed the bleeding, the baby was extremely active. This activity, no doubt, was the first sign of fetal distress. It is conceivable that a slight separation had begun at a vital placental area, causing an anoxemia in the fetal circulation. At the time of operation it was noticed that the umbilical cord was quite short. This brings up the question of trauma caused by traction on the cord by the fetus, possibly during a change of position and thus causing the area of separation to be enlarged. The pathologist reported a necrotic area in the placenta and the uterine wall. I have questioned this, stating that might not this so-called necrotic area be an area of senescence in which retrogressive changes occurred. The traction of the fetus on the cord being exerted against this area caused more separation of the placenta, resulting in more hemorrhage, which resulted in a complete dehiscence of the placenta from the uterine wall. Of course, this is purely conjectural.

Criticism might be encountered because so

much time was consumed trying to make the uterus contract. It is the feeling of the essayist that, where adequate blood is at hand and a capable anaesthetist is administering the anaesthesia, every effort should be made to have the uterus contract itself. Many cases of abruption, in which a true Couvelaire uterus is not present, can grossly look like such an organ. Removing a uterus, especially in a primagravid woman, should not be approached lightly, but should be done only as a last resort, in order to give the mother her best chance for living. Hysterectomy following abruption is a shocking procedure and must always be approached with fear and trepidation.

The secondary wound breakdown, I believe, was due to the fact that due to the length of time the patient was under anaesthesia, in our hurry to get the patient back to bed, we might have been careless in closing the subcutaneous fat, allowing oozing to occur with formation of a hematomia and eventual breakdown. The fascia which was closed carefully did not break down. A classical Caesarian section was used only because it is more rapidly performed than is the lapotrachelotomy type of section. Also, the membranes had not ruptured and the case was not a contaminated one.

In conclusion, if the essayist were to pick the most important factor in the treatment of all types of abruptio placentae, he would say blood. It is the responsibility of the obstetrician that ample blood replacement is on hand before taking any specific steps whatsoever. Without it, the outlook, which normally is not good in complete abruption, is hopeless. With it, the chance of the mother surviving is definitely improved.

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THE VEXED RELATIONS BETWEEN HOSPITALS AND SPECIALISTS

During recent years, many resolutions have been introduced in the House of Delegates of the American Medical Association concerning the practice of medicine by hospitals and medical schools.

As late as 1944 the House of Delegates of the A.M.A. approved of "Principles of Relationship Between Radiologists and Hospitals," arrived at by a Conference Committee consisting of three representatives each of the American Medical Association and the American Hospital Association.

Abstract—"5. Inasmuch as no one basis of financial arrangement between a hospital and its radiologist would seem to be applicable or suitable in all instances, that basis should be followed which would best meet the local situation. This may be on the basis of salary, commission or privilege rental, but in no instance should either the hospital or the radiologist exploit the other or the patient." (Proceedings 1944 A.M.A. House of Delegates, p. 38.)

Your President is Chairman of a special committee appointed by the Board of Trustees of the American Medical Association, known as the Committee on Hospitals and the Practice of Medicine, to study this problem and report to the House of Delegates. Last June our committee reminded the House that the A. M. A. *per se* had no disciplinary authority in any such situation and that such authority rested solely with the County Medical Societies.

There has been much dissatisfaction between specialists, such as pathologists, anesthetists and radiologists, and hospitals concerning *net* contracts through which the latter make a profit on the physician's professional services. At times bad public relations have developed with great dissatisfaction among staff physicians and hospital management.

Another hospital issue currently alive in Pennsylvania presents the desire of practicing physicians who do not have definite hospital connections to enjoy closer relations with neighboring hospitals. Until the time arrives when all qualified neighborhood doctors of medicine may receive coordinate hospital privileges each will wish his own patients, when hospitalized for diagnosis or treatment, to enter a hospital with management devoted to the best interest of the patients and the pro-

vision of modern facilities for the work of attending physicians.

The doctor will also appreciate consideration by hospital management and medical staff that will permit his remaining in professional touch with the tests and treatment given his patient while in the hospital, and the return as soon as possible of his patient to his full professional care.

At the July meeting of the Board of Trustees of the Medical Society of the State of Pennsylvania several instances of such friction in Pennsylvania were reported, and your President was instructed to request each County Medical Society, wherever and whenever there is disturbing dissatisfaction between the Board of Directors of a hospital and its medical staff, that it should offer the service, in arbitration, of a neutral committee in an endeavor to reconcile the existing differences.

It is requested that the proper representatives of each County Medical Society inform themselves concerning the Code of Ethics and that they offer their arbitration service in any controversy between the medical staff of hospitals in their jurisdiction and the hospital management where there is grave difference of opinion. Their Delegates to the 1948 State Society Session should also inform themselves concerning these very grave matters which are currently under discussion, both at the State and National level.

This letter is being sent to you hoping to sensitize your County Medical Society concerning these matters which may be brought up in the 1948 House of Delegates of the State Society meeting in October.

The American Medical Association's legal department is at the moment evaluating the laws concerning the practice of medicine in the various States in the Union, so that proper recognition may be given to all of the legal aspects of the situation and that the action or actions taken may comply with the laws and also, we hope, with the principles or ethics of the A.M.A., which are the same as those of the Medical Society of the State of Pennsylvania.

Our great effort during the past few years has been to develop improved public relations. There is nothing that will endanger these public relations as much as will continued controversy between those who render the medical services to the public and the institutions coordinating with the medical profession to provide the workshop for the delivery of this service.—Elmer Hess, M. D., President, The Medical Society of the State of Pennsylvania, *Phila. Med.,* August 28, 1948.

CANCER OF THE CERVIX

Cancer of the cervix appears more frequently in women who have not yet reached their 40th birthday, according to a study of 296 consecutive cases reported in the current issue of the *American Journal of Rotengenology,* which is published primarily for physicians who specialize in x-ray and radium.

The study, covering the period from 1935 to 1944, inclusive, was reported by John F. Hynes, M. D., of the Carpenter Memorial Clinic and Memorial Hospital, Wilmington, Delaware.

Fifteen of the cervix cancer cases or five per cent were from 20 to 29 years of age, and 55 cases or another 20 per cent were from 30 to 39 years of age. The maximum incidence of cancer of the cervix is in the fifth and sixth decades. Eighty-five of the cases were between ages 40 and 49; 78 between years 50 and 59; 50 between ages 60 and 69; seven between the years 70 and 79 and three at the age of 80 or over.

"Three significant findings are reported with regard to the relation of cervical cancer to race," Dr. Hynes says, adding: "First, it appears at an earlier average in Negro women; second, the disease is usually more advanced on admission, and third, there seems to be no difference in curability in spite of this.

"We can only explain this last finding by an impression we have formed: the fortitude and stamina of the Negro patient enables her to survive treatment one would hesitate to use on the white patient. The earlier incidence is probably due to earlier pregnancies, earlier venereal infections, and less medical attention for chronic cervical infections."

Dr. Hynes says that "the failure of the patient to seek advice after onset of symptoms accounted for delay in diagnosis and treatment in two-thirds of the cases. Usually this was due to the patient's ignorance of the importance of unusual bleeding or discharge."

+ Editorial +

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THE ANNUAL MEETING

The 159th Annual Session of the Medical Society of Delaware was held at Rehoboth on September 13-15, 1948, President Howard S. Riggin, of Seaford, presiding.

The meeting of the House of Delegates was held at the Rehoboth Beach Country Club on September 13, a quorum being present. The usual reports were received and accepted, and a small amount of new business was presented, chiefly, resolutions presented from other societies. The Transactions will be printed in the December issue of THE JOURNAL.

The scientific sessions were held at the Colony Club on September 14 and 15, with papers of outstanding merit by essayists who are authorities in their various fields, as follows: Some Limitations of Roentgen Diagnosis, Russell Wigh, M. D., Philadelphia; Problems in Genito-Urinary Diagnosis and Treatment in a Community Hospital, Ervin L. Stambaugh, M. D., Lewes; The Importance of Allergic Diseases in Medicine, Fred W. Wittich, M. D., Minneapolis; Office Gynecology, John B. Montgomery, M. D., Philadelphia; Current Poliomyelitis Research, Hart E. VanRiper, M. D., New York; Factors Which Have Contributed to the Low Mortality Rate in Obstetric Practice, Thaddeus L. Montgomery, M. D., Philadelphia; Diagnosis and Treatment of Foot and Hand Eruptions, Clarence S. Livingood, M. D., Philadelphia; Impressions of Socialized Medicine in England, Brian Hunt Vawdry, M. B., Oxted, Surrey, England; Treatment of Rectal Procidentia, Robert R. Layton, M. D., Dover; The Management of Cardiac Infarction, with Emphasis on Recent Trends, Lawrence S. Carey, M. D., Philadelphia; Modern Trends in the Treatment of Arthritis, Richard T. Smith, M. D., Philadelphia; The General Practitioner and the County Medical Society, Howard S. Riggin, M. D., Seaford; The Use of Radioactive Isotypes in Clinical Medicine, John Z. Bowers, M. D., Washington; Infectious Hepatitis, W. Paul Havens, M. D., Philadelphia; Delivery of Quadruplets by Caesarian Section, John C. Ullery, M. D., Philadelphia; The Intensive Therapy of Syphilis, Norman R. Ingraham, Jr., M. D., Philadelphia; The Potential Inguinal Hernia, Howard L. Reed, M. D., Wilmington. This represents a one hundred per cent presentation of the papers planned.

At the General Session on the morning of September 15, Dr. M. A. Tarumianz, Farnhurst, was elected President for the year 1949, along with the following other officers; First Vice-President, Henry V'P. Wilson, Dover; Second Vice President, Ervin L. Stambaugh, Lewes; Secretary, Gerald A. Beatty, Wilmington; Treasurer, W. W. Lattomus, Wilmington; Councilor, C. J. Prickett, Smyrna; Delegate to A. M. A., James Beebe, Lewes; Alternate to A. M. A., C. C. Neese, Wilmington.

The Woman's Auxiliary met on September 14 at Rehoboth Beach Country Club, Mrs. George C. McElfatrick of Wilmington, presiding. Their reports were presented at a short business meeting, followed by an election and installation of officers for the year 1948-49, as follows: President, Mrs. Roger Murray, Wilmington; President Elect, Mrs. W. C. Pritchard, Smyrna; Recording Secretary, Mrs. S. W. Rennie, Wilmington; Corresponding Secretary, Mrs. J. J. Cassidy, Wil-

mington; Treasurer, Mrs. C. M. Bancroft, Wilmington.

The social affairs at the Rehoboth Beach Country Club were of an exceptionally pleasant character. The luncheon on September 14, as guests of the Medical Society of Delaware, was attended by 106 persons; the subscription dinner that evening was attended by 110 persons; and the luncheon on September 15, as guests of Sussex County Medical Society, was attended by 98 persons.

The commercial exhibits were the largest in the history of the Society, there being 17 exhibitors occupying 22 booths. We hope this represents the beginning of an annual commercial exhibit of real proportions.

The registration was as follows: members, 80; guests, 20; Woman's Auxiliary, 41; exhibitors, 33; making a total registration of 174 persons.

The printing of the program was delayed by factors beyond our control, but we have been advised that the quantity and quality of the presentations made up for this unavoidable tardiness.

In conclusion, President Riggin and his aides are to be congratulated upon the manner in which they conducted both the business and the scientific meetings. The Society can now look forward to a bigger and better meeting in Wilmington in October, 1949.

Tuberculosis is one of the great enemies of mankind. During the war, deaths from this disease increased almost everywhere as a result of crowding, malnutrition, and the intimate association of open cases of the disease with the general population due to the breakdown of control measures. Indeed, during 1944 and 1945, the death rates of Europe reached almost alarming heights, in many places doubling the prewar rate. Since that time there has been a deceptive reduction in current tuberculosis death rates, due to the fact that many of those persons who would normally have survived to swell the present death rate died earlier than would have been their expected lot. The rate of infection, however, remains high, as revealed by mass x-ray and tuberculin surveys, threatening a progressive increase in death rates during ensuing years. Important steps can be taken to ward off this increase and reduce, progressively, the rate of infection. Long-established methods of control, which have proved highly effective where they have been well developed, require extension and strengthening. The essence of these control measures is the finding and isolation of contagious cases.—H. van Zile Hyde, M. D. World Health Organization, Progress and Plans, Dept. of State Bull., April 4, 1948.

The serious potentialities of minimal incipient lesions of the pulmonary tuberculosis indicate the need for both careful therapeutic management and extended follow-up observation of such cases.—David Reisner, M. D., Am. Rev. Tuberc., March, 1948.

There is no Marxian method of eliminating gambiae mosquitoes as distinguished from a western democratic method. The principles of sanitary engineering do not bear a Russian or an American label. No difference exists between tuberculosis in the Soviet Union and tuberculosis in the United States. Infantile paralysis is the same thing in Moscow and in Washington, and human sorrow is no less poignant in one city than in the other. The world of disease and misery is not divided; it is a common world. In terms of human suffering the world is truly and tragically one world. —Raymond B. Fosdick, Rockefeller Foundation Rev., 1947.

BOOK REVIEW

Advances in Pediatrics, Volume 3. Editorial Board: S. Z. Levine, Cornell University Medical College; Allan M. Butler, Harvard Medical School; L. Emmett Holt, Jr., New York University, N. Y.; and A. Ashley Weech, University of Cincinnati. Pp 363. Cloth. Price $7.50 New York: Interscience Publishers, Inc., 1948.

Eight personalized monographs are presented in this book upon such subjects as Effects of Birth Processes and Obstetric Procedures upon the Newborn Infant, Retrolental Fibroplasia, Emotions and Symptoms in Pediatric Practice, Therapeutic Agents in the Treatment of Epileptiform Seizures, Viral Hepatitis, Abnormalities and Variations of Sexual Development During Childhood and Adolescence, Puberty and Adolescence: Psychologic Considerations and The Osteochondroses.

This variety of subjects makes the book a most interesting one for general practitioners as well as for pediatrists. The subjects are treated in a very comprehensive manner by men who are leaders in their respective fields of special study.